Our Song Lake Watershed

Volume 12

www.songlakewatershed.org

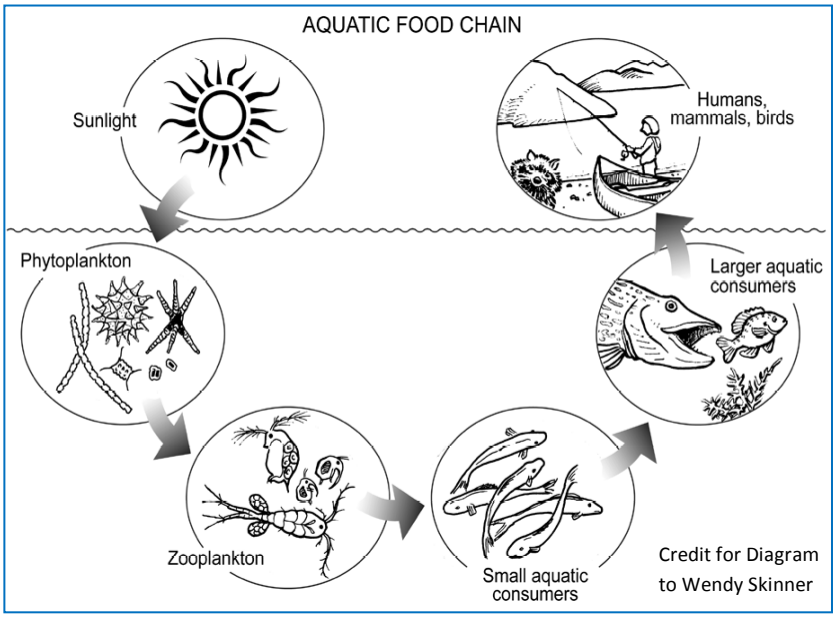
Our Summer Lake

The ice is gone, and with the passing of spring, the lake water has mixed, creating a more uniform condition in the varying layers. Because of this "turnover," assisted by the winds, the lake is clear and cool. This will change over the summer as the sun heats the upper layer of the lake, called the epilimnion. At depths greater than 15 to 20 feet, a layer of cooler water should remain. This lower layer is called the hypolimnion. Water becomes denser as it cools to 39°F: however, as it cools below that it actually becomes less dense and rises to the surface as ice at 32°F. During the summer, as the water continues to heat, the cooler, denser water will remain in the lower layer.

Most of Song Lake is 15 feet deep, or less, so there are few areas where the water doesn't mix. Therefore, temperatures are more uniform around the lake. Over the years of water quality testing, however, we have found that the surface waters got as warm as 84°F (July 23, 2011) while the water at the 30 foot depth remained around 65°F.

Our lake ecosystem (environment) becomes more active as sunlight increases the energy entering the system. The daily cycle of plant photosynthesis by day and respiration at night has a greater impact on the oxygen levels in the lake. Aquatic plants create oxygen during photosynthesis, but use up oxygen, and release carbon dioxide in the respiration process. Photosynthesis only takes place during the day, but respiration occurs all the time. Therefore, surface waters will have higher levels of oxygen where photosynthesis and wind aeration is greater, while the lake bottom waters begin to lose oxygen

The aquatic food chain continues yearlong, but with the sun's increased energy to the water, life abounds. This diagram from **Diet for A Small Lake**, (Credit: Wendy Skinner) helps us to visualize some of that activity. To learn more about lake ecology you can go to the web and download the entire chapter at http://www.dec.ny.gov/docs/water_pdf/dietlakech1.pdf



JOIN US for the Annual SLPOA Picnic and Association Meeting

Sunday, August 5th!
~ Under the tents at the Brocks ~
Meeting at 3:00
followed by food and fun!

Interesting Creatures in the Water

At our August Picnic in 2011, Song Lake residents were treated to an informative session with Professor Kim Schulz and Andrew Brainard. They introduced us to bryozoans, also known as moss animals. This interesting phenomenon is really a colony of microscopic, aquatic invertebrate animals (zooids). Although they are not related to coral, they create colonies in a very similar manner. This rather large specimen was found by Matthew Goddard last summer. **These filter feeders are native to the lake and feed by straining suspended matter from the water.**

Invasive Species REMINDER!

The transfer of invasive species increases during the summer. Please, be sure to follow all these best practices to keep invasive species out of our lake.

STOP AQUATIC HICHHIKERS!

IF A BOAT HAS BEEN ON ANY OTHER WATERBODY~ DO THESE THINGS BEFORE LAUNCHING ....

- BE SURE ALL MUD, PLANTS, FISH AND ANIMALS ARE REMOVED FROM BOAT
- DRAIN WATER FROM ALL EQUIPMENT
- THOROUGHLY WASH AND DRY ALL PARTS THAT CONTACT THE WATER

PROTECT SONG LAKE!
FROM INVASIVE SPECIES

C-OFOKLA Coming Events

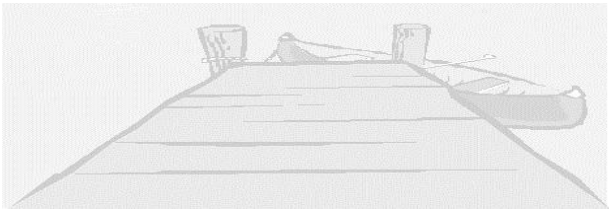
Song Lake is a founding member and very active participant in **The Cortland-Onondaga Federation of Kettle Lake Associations**. Our lake partners include Tully Lake, Crooked Lake and Little York Lake. The mission of the group is to educate about, and advocate for, our unique kettle lakes. Each meeting begins with a presentation on some issue involving our watersheds. From geology and limnology to fish and birds, all speakers are professionals in the specific field being presented. Please join us! The next presentations are:

A Study of the Kettle Lakes In Cortland & Onondaga Counties - August 20th Monday 7PM Tully Town Hall **- Andrew Brainard will present.** Andrew is a Doctoral student at SUNY-ESF. His study conducted research on Song Lake, Crooked Lake, Tully Lake, Little York Lake, and Gatehouse Pond to investigate the impacts of boat traffic and development on the success of non-native species establishment. Please join us as he shares his findings from a year of research.

Annual Water Festival and Picnic - September 23rd 1:00 – 4:00 Little York Lake Pavilion and Sponsored by The Cortland-Onondaga Federation of Kettle Lake Associations - Join us for another wonderful afternoon of fun and food on the lake.

Dock Days

It's not too late! If you are interested in either having some assistance moving your dock, or helping others to move theirs, please contact Gloria Wright (315-696-5524. Dock Days would land on or near Memorial Day (docks in) and Labor Day (docks out).

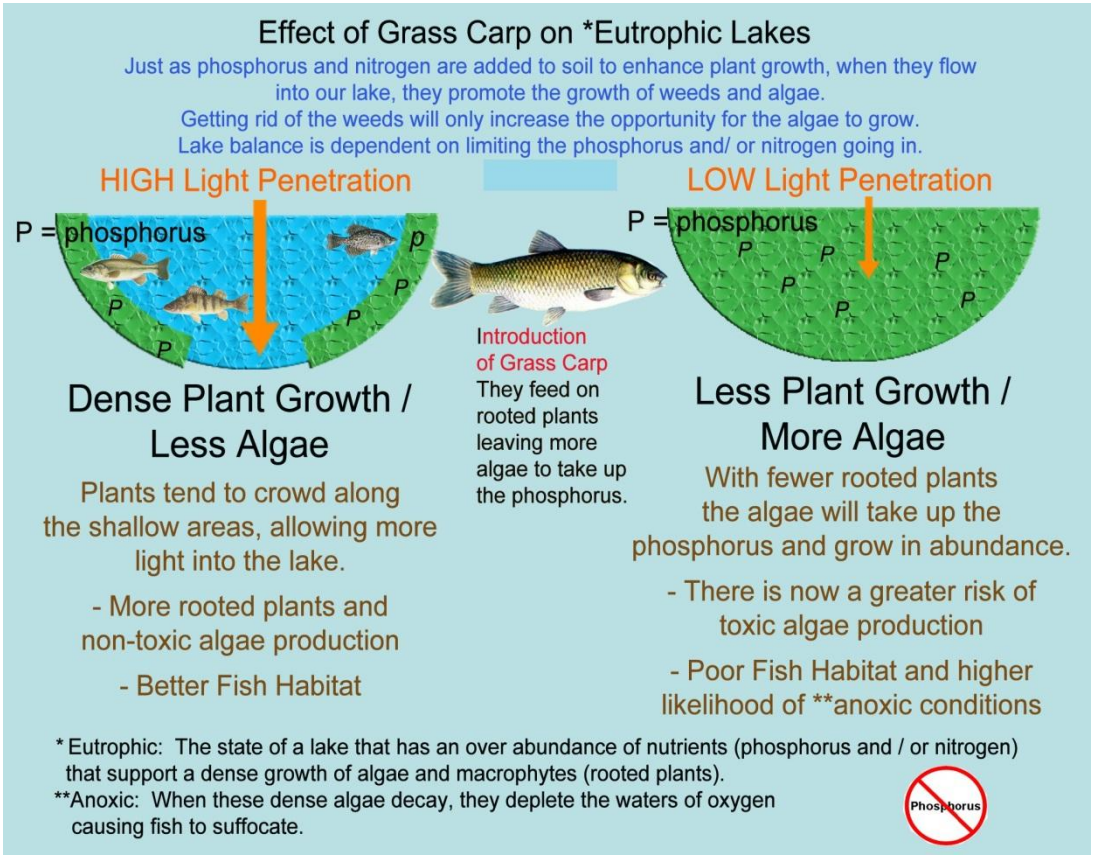


CSLAP Results 2011

While the lake looks lovely, water quality problems remain with stresses primarily due to high phosphorus and algae. The complete results from last year's testing (2011) are on the website.

The reasons for the high phosphorus levels are not well defined. Since New York State prohibits the use of phosphorus in cleaning products and lawn fertilizers, our phosphorus most likely is coming from the following sources: yard runoff and disturbed sediment releasing phosphorus into the water column, faulty septic systems, and agricultural inputs. Another recent concern may include the die off of carp, as they sink to the bottom of the lake when they die. These very large fish contribute more phosphorus. Over a ten year period, the lake was stocked six times for a total of 2,557 fish. We do not know how many are still alive.

We also know that although the carp have been very good at minimizing the weeds, they have created another imbalance in the lake. With no weeds to take up and hold onto the phosphorus, algae have been allowed to dominate. All our "expert" advice has been to remove them, if we can. This diagram, produced with the assistance of Professor Schulz, shows this imbalance.



This relationship has been seen on other lakes that have stocked grass carp for weed control.

Please take a moment to fill out the Carp Survey as you renew your membership this year! Thank you!

Harmful Algal Blooms – HABs

We know from last year's testing that our blooms carry mycrosystin, a toxin that can cause serious issues mainly affecting the skin, respiratory system and liver. Please be aware of these blooms and do call if you have any on your shoreline. As the weather warms, and especially on sunny, mild days, we can expect more blooms to occur. Again, the main concerns are for small children and pets. Dogs are at greatest risk as they will ingest larger quantities as they attempt to clean their fur. If your dog has been in an HAB infested area, wash the dog, but be careful to limit your own exposure as you do so.

Thanks to our rapid response team, Carl Grillo and Tony George, and the work of CSLAP, the NYS DEC and SUNY-ESF, we have a team ready, with the ability to collect, send and test algae samples as they occur. If you have suspicious algal blooms, please don't hesitate to call one of the committee members. Our phones are listed at the end of this publication.

CSLAP

CSLAP stands for Citizen's Statewide Lake Assessment Program. It is funded through the Department of Environmental Conservation and works with the New York State Federation of Lake Associations (NYSFOLA) to create a database of water quality information. This information is used by the participating lake associations to develop watershed management plans and by NYSFOLA and the DEC to monitor the health of our lakes statewide. Song Lake is a member of NYSFOLA, and therefore eligible for CSLAP. The nominal fee for this program has been funded for us by Cortland County Soil and Water, and we are in our sixth year of water quality testing.

There are eight testing days, from June 1st to mid-September. Tony George and Carl Grillo have done a phenomenal job as our CSLAP volunteers over the years. With only some small changes, we test for nitrogen, ammonia, phosphorus, ph, color, clarity and algae.

If you want to learn what a secchi disk is, or how the lake samples are taken, you can! The Watershed and Environment Committee would like to invite anyone interested to join Tony and Carl – no commitments, just a chance to see what they do and how the program works. Testing is done every other Saturday morning. If you would like to ride along with them on June 30th or another Saturday, give Tony a call at 315-696-8045.

Here's an Idea!
The Magnificent Trees of Song Lake

Oaks, hemlocks, maples, cottonwoods, pines and so many more trees surround us. We invite you to share your pictures and stories of the magnificent trees on Song Lake. It could be a tree in your yard, or one you admire along the lakeshore. We will compile the pictures and any stories you may have about the trees. Send them to Tarki via email at songlakeassociation@gmail.com

The Song Lake Watershed & Environment Committee

Please consider making a donation to the watershed fund. These funds provide the money needed for these newsletters, water quality testing and many other projects. We will continue to work on issues of importance to all those living on the lake and truly appreciate your support. To find out more about our work and that of the association please go to the website at, www.songlakewatershed.org . We would love to hear from you with your ideas and insights. To provide feedback about our work, give us a call, or email your comments to Songlakeassociation@gmail.com

Members: Tony George -696-8045, Marjie Grillo -696-5963, Tarki Heath -696-5262, Peter Tague - 696-5612, Gloria Wright -696-5524

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